

LFG

**DEPARTMENT OF WATER RESOURCES**

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January 30, 2009

Ms. Debra Man  
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Mr. Jim James  
Western Development and Storage, LLC  
2773 25<sup>th</sup> Street  
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2009 FEB -2 PM 1:56  
OFFICE OF THE ATTORNEY GENERAL

Dear Ms. Man and Mr. James:

This is in reply to Western Development and Storage's November 24, 2008 letter and to Metropolitan Water District of Southern California's (MWD) December 12, 2008 letter to the Department of Water Resources (DWR) concerning a proposed transfer from the Delta Wetlands property on Bouldin Island and Webb Tract to MWD. Delta Wetlands proposes to idle up to 5,426 acres on Bouldin Island and up to 4,189 acres on Webb Tract in the Sacramento-San Joaquin Delta, and transfer up to a total of 17,941 acre-feet of water for export to MWD.

DWR strongly supports water transfers as a means to efficiently and effectively manage California's limited water resources, particularly in critically dry years such as we are currently facing. Water transfers can provide crucial supplemental supplies for water short areas. However, it is essential that any transfer be limited to the amount of new water resources made available to assure that the transfer can be implemented without adversely affecting other legal users of water, including DWR, and without unreasonably impacting fish, wildlife, other instream beneficial uses, or the economy of the area from which the water will be transferred. To protect other legal users of water, the transfer quantity from a crop idling program must be limited to the reduction in consumptive use during the transfer period. Due to the location, and the conditions existing on the islands in the Delta, DWR has grave concerns regarding the Delta Wetlands transfer proposal.

The Delta Wetlands islands included in the transfer proposal are located in the western Delta and land surface elevations are well below sea level. Major portions of the islands are greater than 15 feet below sea level. Water is diverted from the adjacent channels onto the islands through unmetered siphons.

Unmetered drainage pumps discharge intercepted groundwater and irrigation return water back into the Delta channels. Because of the low elevation of the islands and the organic soils, there is significant lateral movement of water through the soil onto the islands which causes a high water table. This lateral movement may satisfy a significant portion of the crop water demand. DWR staff is not currently aware of a method to determine the quantity or timing of the channel depletions attributable to this lateral movement. In addition, recent studies performed on Bouldin Island indicate there may be substantial evaporation from bare soil in the Delta lowlands which would affect the calculation of conserved water.

The high water table and significant lateral movement of water also create a substantial problem maintaining the idled fields free of weeds and native vegetation. Water consumed by weeds or native vegetation on the idled fields reduces the amount of water made available for transfer. Delta Wetlands has proposed plowing the idled fields to prevent weed growth. In 1991, DWR operated the Emergency Drought Water Bank. It was the first program of its kind in California. As part of the program, a substantial amount of acreage within the Delta was idled, including land within the Delta lowlands. Detailed tests were conducted in subsequent years to quantify any water savings from crop idling programs in the Delta. These studies demonstrated that water savings from such programs in the Delta is extremely limited.

The high groundwater in the Delta lowlands causes evaporation from idled moist soils and excessive weed growth on the idled land which proved very difficult to manage. The high groundwater and significant lateral movement on the islands provided vegetation in the idled fields with continual access to a water supply supporting substantial weed growth. In some cases, evapotranspiration from excessive weed growth may have equaled production crop evapotranspiration. Efforts to control weed growth on the lowland areas proved problematic. Initial proposals anticipated plowing, the primary method used for weed control, once or twice during the growing season. This proved to be inadequate to control weed growth and the required frequency of plowing increased significantly. Some areas required nearly continual plowing. The Department of Fish and Game (DFG) expressed concern over the plowing of acreage during the growing season due to potential impacts to ground nesting birds and required a modification of the weed abatement programs to prohibit plowing during the nesting season. This resulted in additional evapotranspiration losses associated with the resultant weed growth. The contracted quantities of water available for transfer were substantially reduced as a result of the inability to prohibit weed growth. It is for these reasons that in our water transfer paper related to crop idling transfers (updated in 2008 for use in 2009 and can be found at [http://www.watertransfers.water.ca.gov/geninfo/geninfo\\_index.cfm](http://www.watertransfers.water.ca.gov/geninfo/geninfo_index.cfm) ) on page 13

states that lands with groundwater within 5 feet of the surface need to be avoided due to probable injury issues.

Another concern related to frequent plowing in this location is the potential impact to Delta soils and air quality. The organic soils on both Bouldin Island and Webb Tract are subject to wind erosion and oxidation causing subsidence of the Delta islands. Frequent plowing on idle fields for weed control has the potential to exacerbate erosion and subsidence concerns. Subsidence of Delta islands is of major concern for the sustainability of the Delta. DWR is currently involved in efforts to investigate the mechanisms that contribute to Delta island subsidence and in developing methods to help reverse subsidence. Frequent plowing combined with typical spring and summer wind patterns in the Delta also create a potential for impacts to air quality resulting from increased particulate emissions due to diesel emissions and dust.

In addition to the issues discussed above, the total quantity of water available for transfer would be reduced by the quantities made available at times when SWP pumping capacity is restricted. DWR would not be able to back any transfer water into upstream storage due to the location of Bouldin Island and Webb Tract, hydrologic conditions and operational constraints. SWP pumping capacity at Banks Pumping Plant for water transfers in 2009 is not expected to be available until July. This is much different than was the case in the 1991 water Bank due to new pumping restrictions related to Delta Smelt imposed by the U.S. Fish and Wildlife Service.

Due to the noted high degree of uncertainty as to how much water would ultimately be conserved for transfer from the Delta Wetlands proposal, DWR approval of a transfer would be contingent on a number of assurances from the water transfer proponents. Delta Wetlands would be required to work with DWR staff as necessary to calculate the anticipated reduction in consumptive use from fallowing the acreage on the two islands, and develop a specific plan for maintaining the idled fields free of weed growth and to monitor real time net water savings during the year. Subject to DWR approval, the plan must address potential adverse impacts to the organic soils, including potential subsidence, local air quality, and to provide assurances that the proposed weed control methods would not adversely affect fish, wildlife, or other beneficial uses. A monitoring program to be conducted by DWR staff, would be required to include frequent on-site verification. The costs of the verification program and all the needed monitoring would be the responsibility of the project proponents. Any evapotranspiration losses throughout the transfer period attributable to weed growth or other factors would be deducted from the quantity of water available for transfer at the sole discretion of DWR. Upon final verification, if the final determination of actual water savings is less than the quantity transferred, adjustments would be made to MWD's SWP Table A deliveries in 2009.

Ms. Debra Man, et al  
January 30, 2009  
Page 4

Last, approval of the transfer would require the concurrence of the U.S. Department of Interior's Bureau of Reclamation (Reclamation). DWR staff has forwarded the information submitted by Delta Wetlands to Reclamation for review. We will further discuss your proposal with Reclamation. Without the above information and assurances, the proposed transfer has the potential to result in adverse impacts to the State Water Project and the Central Valley Project as well as Delta resources.

If you have any questions or would like to discuss the issue further, please contact me at (916) 653-4313 or Mark Andersen at (916) 653-5945 in the State Water Project Analysis Office.

Sincerely,

**ORIGINAL SIGNED BY**  
**Robert B. Cooke, Chief**

Robert B. Cooke, Chief  
State Water Project Analysis Office

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